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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,911	01/17/2006	Johannis Friso Rendert Blacquiere	NL030897	5339
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EXAMINER PENDLETON, DIONNE				
ART UNIT 2627		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,911

Applicant(s)

BLACQUIERE ET AL.

Examiner

DIONNE H. PENDLETON

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 1-3, 5, 8, 10, 14 and 18** are rejected under 35 U.S.C. 102(e) as being anticipated by **Sims, III et al (US 7,058,852)**.

Regarding claims 1, and 8,

Sims teaches a device for recording information in blocks having logical addresses, the device comprising:

A recording unit ("**351**" in **figure 3**) for recording marks in a track on a record carrier representing the information,

A controller (**see processor "312" in figure 3**) for controlling the recording by locating each block at a physical address in the track, the controller comprising

An addressing unit for translating the logical addresses into the physical addresses and vice versa in dependence of defect management information (**column**

9:44-47 teaches mapping physical addresses to logical addresses, while column 12:4-7 teaches conversion of logical address to physical address),

A defect management unit for detecting defects and maintaining the defect management information in defect management areas on the record carrier (**see discussion of primary and secondary defect lists in column 3:52-55, and column 4:11-15),**

the defect management information including assignment information indicative of assignment of physical addresses in first parts of the track to at least one user data area, and assignment of physical addresses in second parts of the track to defect management areas (**column 12, lines 31-41**), and the defect management information including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect management area (**column 4, lines 11-15**), and

an assignment unit for adapting the assignment information in dependence of a detected defect, detected during recording, by creating new defect management area having a starting physical address near the detected defect (**see column 9, lines 36-47; also see Figure 2 which illustrates that the new defect management area is slipped-to and thus “near” the detected defect**).

Regarding claim 2,

Sims teaches the device as claimed in claim 1, wherein the new defect management area includes the detected defect (**column 12, lines 4-7 discloses that**

the physical address of a new defect area contains additional spare area, the detected defect and a replacement recording of the defect).

Regarding claim 3,

Sims teaches the device as claimed in claim 1, wherein the new defect management area has predefined size, or a size based on defect parameters of a preceding or following recording area, including at least one of an amount and distribution of defect management areas already assigned, an amount of user area between the new defect management area and a preceding or following defect management area, and/or detected defects **(see discussion of spare length (SL) and spare intervals (SI) in column 12:38-41).**

Regarding claim 5,

Sims teaches the device as claimed in claim 1, wherein the new defect management area include a range of physical address in a part of the track originally assigned to the at least one user data area, the part of the track being a free space in the user data area **(Figure 2 of Sims illustrates that the same area used for recording user data, may be allocated as a defect management area when a defect is detected).**

Regarding claim 10, 14 and 18,

Sims teaches the device as claimed in claims 1 and 8, wherein the new defect management area_ starts at a location of the detected defect (**column 9:36-38, also see Figure 2**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ohata (U.S. 6,469,978)** in view of **Tokumitsu (Pub. No. US 2002/0150009)**.

Regarding claims 1, 8 and 19,

Ohata teaches a device for recording information in blocks having logical addresses, the device comprising:

a recording unit ("**3**" in **figure 13**) for recording marks in a track on a record carrier representing the information,

a controller (**8** in **figure 13**) for controlling the recording by locating each block at a physical address in the track, the controller comprising

An addressing unit (**6 in figure 13**) for translating the logical addresses into the physical addresses and vice versa in dependence of defect management information (**column 10:19-24**),

A defect management unit ("**4**" in figure 13), for detecting defects and maintaining the defect management information in defect management areas on the record carrier (**column 10:29-41**),

the defect management information including assignment information indicative of assignment of physical addresses in first parts of the track to at least one user data area (**column 7:64-column 8:5, emphasis on line 5 of column 8; also column 10:29-34, emphasis on lines 33-34**), and assignment of physical addresses in second parts of the track to defect management areas (**column 7:52-63; figure 2; also column 10:35-37**), and the defect management information including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect management area (**column 8:29-36; also column 10:44-47 which discloses mapping logical address to physical address**), and

an assignment unit (**combined operations of "6" + "7" in figure 13**) for adapting the assignment information in dependence of a detected defect, detected during recording, by creating new defect management area having a starting physical address near the detected defect (**According to the Applicant's specification, lines 15-17 of page 10, "creating" is defined as "assigning an additional physical**

address...". Column 8, lines 29-36 discloses that if a sector in the user area may not be used due to defect, a spare area is *used* in place of the defective sector. In light of the Applicant's specification, the "use" of a spare area is interpreted as corresponding to "creating new defect management area" as newly amended.)

Ohata does not expressly teach that assignment information is adapted in dependence of a detected defect, detected during recording.

TOKUMITSU teaches, in **paragraph [0002]**, assigning an alternative block i.e., adapting assignment information, for recording therein when a defective block is detected during the recording operation.

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Ohata and Tokumitsu, such that defective area may be detected during the recording operation, for the purpose of enabling the recording of data to the optical disc in question.

Regarding claim 4,

Ohata teaches the device as claimed in claim 1, wherein the new defect management area has a size including at least a first detected defect, a second detected defect and the physical addresses between the first and second detected defect (**column 8:29-36 teaches that detected defects are recorded in respective sectors of the spare area. Adjacent sectors inherently have some degree of free space there-between, said free space being directly or indirectly accounted for in the address information of the defect list).**

Regarding claim 5,

Ohata teaches the device as claimed in claim 1, wherein the new defect management area include a range of physical address in a part of the track originally assigned to the at least one user data area, in particular the part of the track being a free space in the user data area **(column 9:23-34)**.

Regarding claim 6,

Ohata teaches the device as claimed in claim 1, wherein the device comprises a contiguous recording detection unit for detecting a series of blocks having a continuous logical address range to be recorded in a corresponding allocated physical address range **(column 10:19-24, 44-47, and column 13:8-20)**, and the new defect management area is outside the allocated physical address range **(see, column 13:40-50)**.

Regarding claim 7,

Ohata teaches the device as claimed in claim 6, wherein the contiguous recording detection unit is for detecting a continuous recordings indicator in a recording command, or for detecting the series of blocks representing real-time information, or for detecting file system information for detecting that the series of blocks constitute a file **(Ohata teaches a device for use with conventional optical discs having data thereon or requiring data to be written thereto, in which case user data areas having data written therein will be indicative of continuous recordings as claimed)**.

3. Claims 11-13, 15-17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ohata (US 6,469,978) or Sims, III et al (US 7,058,852)** in view of **Andoh (US 6,654,904).**

Regarding claims 11-13, 15-17 and 18,

Each of Ohata and Sims III, teach the device of claim 1 wherein a defect management area is created near a detected defect.

However, each fails to expressly teach delaying creation of the new defect management area until further detection of a detected defect as specifically described in claims 12,13,16 and 17.

Andoh teaches the detection of defects in an optical storage medium and further defection of a continuous series of defective sectors wherein the continuous series of defective sectors are identified and discriminated from individual defective sectors. Andoh further teaches that upon detection of a continuous series of defective sectors, said continuous series is registered as a defective "batch", wherein data related to the continuous series of defects includes a first absolute block address of the series of defective sectors and sector length (the number of sectors) of the series of defective sectors. It would have been obvious for one of ordinary skill in the art at the time of the invention to alter the device of Ohata or Sims, per the teachings of Andoh, therein identifying defective sectors which are continuous over a predefined area, for the purpose of increasing process performance at the time of a disk access by simplifying the processing of generating an defect identification table.

Response to Arguments

4. Applicant's arguments with respect to claims rejected in the Official Action mailed 9/15/2008 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIONNE H. PENDLETON whose telephone number is (571)272-7497. The examiner can normally be reached on 10:30-7:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dionne H Pendleton/
Examiner, Art Unit 2627

/Wayne Young/
Supervisory Patent Examiner, Art Unit 2627